REMARKS

Claims 3, 4, 7, 14 and 21 are canceled. Claim 16 is amended to depend from Claim 8. Claims 1, 2, 5, 11-13, 15 and 19 were previously canceled.

The claims now in the application are claims 6, 8-10, 16-18, 20 and 22.

Claims 6 and 8 are amended to recite the weight ratio of titania and alumina as 1/99 and 80/20. Basis appears in the specification at page 10, last sentence of the first paragraph and in Table 1 where 80/20 and 1/99 are both tabulated.

Claims 6 and 8 are also amended to specify that ruthenium falls between 0.3 and 3% by weight, as recited in allowed claim 22.

RE THE DETAILED ACTION

The remarks concerning In re Kerkhoven 2050 USPQ 1069 are noted.

In view of the deletion of Claims 3-4, the rejection under 35 U.S.C. § 102 as anticipated by Courty et al. (U.S. 4,207,169) is moot.

Reconsideration and withdrawal of the rejection of retained Claims 6, 8-10, 14, 16-18, and 20 under 35 U.S.C. § 103(a) as being obvious over Yasushi (JP 09-131531) are requested.

The rejection is apparently based on the rationale that through "Yasushi does not specify a limit on the weight ratio of titania to alumina in such a carrier, however it is expected that the ratio may be within the limits of 0.1/99.9 and 90/10, because these represent an immense range of carrier compositions. Furthermore, it would have been obvious to one of ordinary skill at the time of invention to utilize a titania-alumina carrier composition within these limits, as doing so is taught to be the optimization of a known process."

However, the Official Action recognizes the disclosure of unexpected and advantageous results for the subject catalyst in its effect on CO concentration of processed essentially hydrogen gas, expressed as follows:

> Unexpected results are shown, specifically, that the catalysts having a titania-alumina weight ratio within the claimed range are active at higher maximum temperatures than those catalysts having only titania or alumina.

The claimed range in Claim 22 of titania to alumina is 20/80 to 80/20.

The subject rejected claims as amended specify a ratio of between 1/99 and 80/20. The table on pages 37 and 38 demonstrates that in such a range significant superior results are obtained. As stated in the specification, page 39, the catalysts having an active metal on a carrier of titania and alumina combined within the above specified ranges are active in a broader temperature range and at a higher temperature than the catalysts with the active metal ore carrier of titania or alumina alone. Applicants note that the higher limit of the reaction temperature range is 300°C in Catalyst 1, 2 and 3 (Example 11) while it is 200°C in Catalysts 7 and 250°C in Catalyst 9 (Comparative Example 5). This temperature difference of 50°C or 100°C is extremely important.

Clearly, the titania-alumina combination within the specified ranges exhibits significant advantages not to be deduced from Yasushi.

Concerning the cited in re Kerkhoven decision, it is sufficient to say that the decision throws no light on the situation where the combined materials in specified proportions achieve results not intended, that is not expected.

Favorable reconsideration is reconsidered of the claims are here amended is solicited.

Respectfully submitted,

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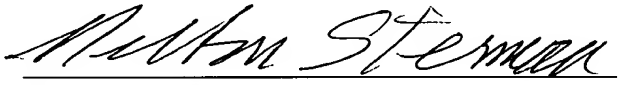

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